

REMARKS

This application pertains to a novel flexible film containing polyamide, comprising at least one layer of polyamide which contains nanoscale, anisotropic fillers.

In the at least one layer containing nanoscale, anisotropic fillers, the cores of the majority of the spherulites do not comprise an anisotropic filler particle (claim 1 and page 6, lines 9-10).

The at least one layer exhibits a combination of elevated maximum thermoforming value, reduced tendency toward thermoforming anomaly (page 12, lines 5-18) and elevated web tension at low rate of elongation. Compare, for example, Examples B2.4, vs.V2.1, V2.2 and V2.3 in the table at page 17 of the specification.

This combination of desirable properties is not found in prior art polyamide films.

In order to obtain such a film, wherein the majority of the spherulites do not comprise an anisotropic filler particle in their cores, the film must be formed by cooling and solidifying the polymer melt on a roll which has a temperature of at most 70°C (page 6, lines 25-27; page 11, lines 9-14; page 12, lines 15-18 and Examples).

Claims 1, 4-11 and 13-15 are pending; claim 12 being cancelled by this Amendment.

Claims 1, 4, 11, 14 and 15 stand rejected under 35 U.S.C. §103(a) as "anticipated" (obvious??) over Khanna et al. in view of Mizutani. The Examiner contends that Khanna discloses a polyamide film which includes a small amount of silica filler, and that it would be obvious to use Mizutani's montmorillonite in Khanna's film.

The Examiner also, however, acknowledges that those skilled in the art would expect that polymer crystals would form from the surface of the nucleating agent (page 3 of Office Action, last paragraph).

The Examiner does not, however, provide any evidence that Khanna or Mizutani, or any combination thereof, would suggest a film in which a majority of the spherulites do not comprise an anisotropic filler particle.

The Examiner argues that it would be obvious to cool the polymer at the rate of former claim 2; Applicants do not understand the relevance of this argument – claim 2 has been cancelled! It should be noted, in any case, that the cooling rate of 10-20°C/minute was cited as promoting the formation of crystalline structures on the surfaces of the filler particles.

In order to obtain Applicants' unique combination of properties, as discussed above, Applicants' cast the molten polymer upon a cooling roll which is at a temperature

This is nowhere taught or suggested in the references cited.

If the Examiner relies on a theory of inherency as to any of Applicants' novel features, extrinsic evidence must make clear that such features are necessarily present in the films described in the references, and that the presence of such features thereon would be so recognized by persons skilled in the art. *In re Robinson*, 49 USPQ2d 1949, 150-51 (Fed. Cir. 1999). Further, inherency is not established by probabilities or possibilities, and the mere fact that a property may result from a given circumstance is not sufficient; instead it must be shown that such property *necessarily* inheres in the thing described in the reference.

The Examiner has not provided any evidence whatsoever that any of the Khanna/Mizutani films would have a majority of spherulites that do not have filler particles in their cores!

With respect to claim 11, it is respectfully submitted that Applicants have shown that the method by which the product is made does cause the product to be patentably distinct from the product produced by the references. Applicants have shown that their product has a unique combination of properties not taught by or inherent in the references. In particular, Applicants' product has a majority of spherulites that do not have filler particles in their cores. The benefits brought about by this special structural

feature are the unique combination of properties as demonstrated in Applicants' Examples.

Accordingly, Applicants' films are not obvious over Khanna in view of Mizutani, and the rejection of claims 1, 4, 11, 14 and 15 under 35 U.S.C. §103(a) as obvious over said combination of references should be withdrawn.

Claims 5, 7-10 and 13-15 stand rejected under 35 U.S.C. §103(a) as obvious over Ramesh in view of the combined teachings of Khanna and Mizutani. The Examiner contends that it would be obvious to use a polyamide film derived from the teachings of Khanna and Mizutani as the outer layer of the film shown in Ramesh. This, even if true, would not overcome the basic deficiencies of the Khanna/Mizutani combination of references discussed above.

The rejection of claims 5, 7-10 and 13-15 under 35 U.S.C. §103(a) as obvious over Ramesh in view of the combined teachings of Khanna and Mizutani should accordingly now be withdrawn.

Claims 7, 8, 10 and 14-15 stand rejected under 35 U.S.C. §103(a) as obvious over Frisk in view of the combined teachings of Khanna and Mizutani.

The Examiner contends that it would be obvious to use a polyamide film derived from the Khanna/Mizutani combination of references as the outer layer of Frisk's film.

This, even if true, would not in any way overcome the deficiencies of the Kanna/Mizutani combination of references, described above.

Accordingly, Applicants' claims cannot be seen as obvious over Frisk in view of the Khanna/Mizutani combination of references, and the rejection of claims 7, 8, 10 and 14-15 under 35 U.S.C. §103(a) as obvious over Frisk in view of the combined teachings of Khanna and Mizutani should now be withdrawn.

Claims 6 and 10 stand rejected under 35 U.S.C. §103(a) as obvious Harada in view of the combined teachings of Khanna and Mizutani.

Here again, the Examiner contends that it would be obvious to use a polyamide film derived from the Khanna/Mizutani combination of references as the outer layer of Harada's film. This, however, even if true, would not overcome the deficiencies of the Khanna/Mizutani combination of references, as discussed above.

Applicants' claims cannot therefore be seen as obvious over Harada in view of the Khanna/Mizutani combination of references, and the rejection of claims 6 and 10 under 35 U.S.C. §103(a) as obvious over said references should now be withdrawn.

In view of the above amendment and remarks, it is believed that claims 1, 4-11 and 13-15 are now in condition for allowance. Reconsideration of said claims by the

Examiner is respectfully requested, and the allowance thereof is courteously solicited. Should the Examiner not deem the present amendment and remarks to place the instant claims in condition for allowance, it is respectfully requested that this Amendment under Rule 116 be entered for the purpose of placing the prosecution record in better condition for appeal.

CONDITIONAL PETITION FOR EXTENSION OF TIME

If entry and consideration of the amendments above requires an extension of time, Applicants respectfully request that this be considered a petition therefor. The Assistant Commissioner is authorized to charge any fee(s) due in this connection to Deposit Account No. 14-1263.